MEETING REPORT

29 May 2002 Science Advisory Panel Meeting
East Contra Costa County Habitat Conservation Plan / Natural Communities Conservation Plan

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Introduction

This report serves as the meeting record for the first Science Advisory Panel (Panel) meeting for the East Contra Costa County Habitat Conservation Plan / Natural Communities Conservation Plan (HCP / NCCP). The report was prepared by the chair and facilitator of the Panel. The chair ensured that the scientific views of the Panel were articulated clearly. The facilitator served in an editorial capacity to ensure that the report was clear and responded explicitly to the questions posed by the Habitat Conservation Plan Association (HCPA) Team. All Panel members have had the opportunity to review this document.

The 29 May Panel meeting began at 11:00 A.M. In addition to the Panel members, attendees included John Kopchik (Contra Costa County), David Zippin (Jones & Stokes), and Ed West (Jones & Stokes). Also present were Rebecca Young (note-taker), Dennis McCormac (Contra Costa Water District), and three members of the public.

Following general introductions, Fleishman described the role of the facilitator and presented the objectives for the meeting. She outlined the good-faith assumptions under which Panel meetings will be conducted and meeting reports compiled, and described the roles and scope of work of the Panel chair and Panel members. Panel members were asked to list and briefly explain any existing collaborations, defined as financial interests and professional relationships related to land-use matters in eastern Contra Costa County. Fleishman also reviewed the timetable and objectives for each of the four anticipated Panel meetings, as well as the process by which meeting records would be completed.

John Kopchik then presented an overview of the East Contra Costa County HCP / NCCP. He introduced the groups participating in the HCP, the circumstances that prompted the HCP, and prior efforts and formation of the HCPA. He also described permits and mitigation, the expected benefits of preparing an HCP, and the public involvement process and general timetable for the East Contra Costa County HCP.

Next, David Zippin explained the regulatory background and HCP / NCCP process for the East Contra Costa County HCP / NCCP. In addition, Zippin described the overall approach for the HCP (e.g., integration of Endangered Species Act and Clean Water Act compliance; keeping within schedule and budget constraints; early, frequent, and active involvement of regulatory agencies, stakeholders, and independent scientists) and its structure (i.e., map-based, policy-based, hybrid). He outlined the HCP / NCCP document, including preliminary covered activities,

physical and biological resources, and land use, and presented the broad conservation strategy for the HCP.

Finally, Ed West reviewed the process used to determine which species would be covered by the HCP. To be covered, a species had to meet the following four criteria:

1. Range. Based on credible evidence, the species must be known to occur or be likely to occur within the inventory area.

2. Status. The species must currently be listed under the federal Endangered Species Act or the California Endangered Species Act, or be likely to become listed within the 30-year anticipated term of the permit.

3. Impact. The species will be or likely will be adversely affected by covered activities.

4. Data. Sufficient data exists on the species' life history, habitat requirements, and occurrence in the inventory area to adequately evaluate impact to the species and to develop conservation measures to mitigate these impacts to regulatory standards.

Most of the remainder of the meeting was spent discussing questions posed by the HCPA Team to the Panel. Following a brief public comment period, the meeting adjourned at 3:00 P.M.

Response to questions posed by the HCPA Team

The HCPA Team posed five questions to the Panel at its first meeting. The questions were developed by the HCPA Team, Jones & Stokes, and the Panel facilitator in cooperation with the HCPA Coordination Group. The following responses represent the overall consensus of the Panel.

1. Given the limitations in data availability, funding, and time (e.g., the minimum mapping unit, and data on land cover, soils, streams, watersheds, topography, NDDB records), is the land cover classification and the methods used to map land cover types sufficient to assess impacts of covered activities, identify conservation areas and actions, and conduct the conservation planning effort?

In general, it would be useful if the land-cover types were linked to covered species. For example, why were these land-cover types mapped, and how are the land-cover types relevant to the covered species?

The definition of oak savanna—grassland with a tree canopy cover of 5 to 10%—seems to be a narrow range of canopy cover values. As currently defined, this land cover type is quite uncommon in the planning area (3%). Another reference defines oak savanna as grassland with a tree canopy cover of 30% or less (Allen-Diaz, B.H., J.W. Bartolome, and M.P. McClaran. 1999. California oak savanna. Chapter 20 in R.C. Anderson, J.S. Fralish, and J.M. Baskin, editors. Savannas, barrens, and rock outcrop plant communities of North America. Cambridge University Press. 470 pages.). It would be helpful if the description of land-cover types clarified why this

particular classification of oak savanna was used. It also might be helpful if the classification were linked to descriptions of suitable habitat for covered species.

The definition of annual grassland gives the impression that very few native bunchgrasses remain in the planning area. Native bunchgrasses do occur in the planning area, although their distributions are highly scattered. In addition, the draft of Chapter 3 does not define native grassland. What proportion of native versus non-native species would render a grassland 'annual' versus 'native'?

Some of the land-cover types are man-made as opposed to naturally occurring. For example, ponds could be either natural water bodies or man-made stock ponds. It might be helpful if the land-cover maps and / or definitions identified land-cover types that require continued maintenance to persist. Further, it might be useful to specify which land-cover types are likely to change if there is a change in land use—especially if those changes in land cover are likely to affect covered species.

Ideally, the land cover map might discriminate among agricultural types (e.g., dryland farming versus irrigated crops such as alfalfa). Different agricultural crops and irrigation methods may support different covered species. It also could be valuable to distinguish between perennial and ephemeral streams.

A limitation of the mapping procedures was that the minimum mapping unit was one acre [ponds smaller than one acre were mapped if they could be discerned on the aerial photographs]. Thus, land-cover types smaller than one acre were subsumed into other land-cover types that could be mapped using a 1-acre or 10-acre unit. Several land-cover types that could not be mapped may be important for covered species. Examples include seeps, springs, vernal pools, rock outcrops, and serpentine soils. Such 'point features' should be identified, perhaps as a separate map layer developed using field notes from aerial and / or ground surveys and personal communication with knowledgeable specialists, if the cost and labor involved is not prohibitive.

The inability to distinguish mixed evergreen forest from oak woodland is unlikely to hinder development of the HCP. Because they are largely on protected land, these two land-cover types do not tend to occur in the areas most likely to be developed. It probably would be more useful to invest available resources in distinguishing between annual and native grasslands. Grasslands (along with alkali flats) are more likely than woodlands to be adversely affected by the covered activities.

2. Are the limitations of the methods for land cover type mapping with respect to the conservation planning effort adequately discussed?

Discussion of the inability to map land-cover types smaller than one acre that may be relevant to covered species should be expanded. The existing map does not identify land-cover types such as rock outcrops or native grasslands. Therefore, the mapping leaves some uncertainties regarding the occurrence and abundance of important resources for some covered species. The greatest need for discussion concerns the inability to differentiate between native grasslands and annual grasslands.

The limitations of the methods for land cover type mapping may vary by taxonomic group. The minimum mapping unit is adequate for birds, and well may be adequate for mammals, but possibly is too large for amphibians and other taxonomic groups with small home ranges.

3. Do the profiles of each proposed covered species adequately catalogue and summarize the ecological literature on this species most relevant to the East Contra County HCP/NCCP? (note: the profiles are not intended to be treatises on each covered species)

> *[Note: if the profiles did not adequately review the relevant ecological literature, panelists were asked to please provide citations of missing data relevant to this effort and copies or original papers, if possible.]*

The adequacy of the profiles must be assessed in light of their goal. The profiles are intended to provide baseline information that can be used to identify impacts of covered activities, and to develop appropriate conservation strategies.

It would be helpful if the profile for each proposed covered species were tied more closely to the species' ecology, status, and threats in eastern Contra Costa County—i.e., why the plant or animal has been placed on the preliminary list of covered species. The profiles might also address the criteria used to determine whether the species would be covered by the HCP. If the profiles specify what data currently exist on the species, they could be useful if the HCP is amended. The profiles could serve as a record of the state of knowledge regarding the species during HCP development against which future changes in the status of the species could be assessed and tracked.

Several Panel members expressed an interest in editing and / or amending the profiles for certain species. In addition, Panel members indicated that they have ecological literature relevant to development of profiles and conservation strategies for certain species. Electronic copies of the profiles have been forwarded to Panel members. The facilitator will compile edited profiles, citations, and papers and forward those materials to the HCPA Team.

4. Did our covered species evaluation overlook any species whose survival or viability, either at the species level or in the inventory area, is likely to be significantly affected by the proposed activities?

A more comprehensive understanding of covered activities would make it easier to determine which species should be covered. Considerable development (and associated adverse impacts on species) can occur over a 30-year period. It is important to emphasize that increased human population density leads to greater recreational use that can have adverse impacts on species of concern.

Several species should be reconsidered for coverage.

In general, species of birds that overwinter in flat and rolling grasslands tend to be overlooked in HCPs because they do not nest in the planning area. Yet several recovering species of birds, including peregrine falcon (*Falco peregrinus*) and bald eagle (*Haliaeetus leucocephalus*), have

extensive territories. Peregrines occur in the planning area now, and bald eagles are highly likely to occur in the planning area within the next 30 years.

Short-eared owls (*Asio flammeus*) could be affected by large-scale (regional) factors or local factors. This species overwinters but does not nest in flat and rolling grasslands in eastern Contra Costa County. However, the species has undergone widespread population declines. Even in areas that are being managed appropriately for the species, population sizes may continue to decrease. Nonetheless, the species might benefit from being covered under the HCP. Contrary to preliminary assessment by the HCPA Team, short-eared owls well may be listed within the next 30 years.

Peregrine falcons will not be impacted directly by the covered activities but are highly likely to be affected indirectly; increases in human population density associated with development often lead to greater recreational use that can disrupt nesting birds. Thus, peregrine falcons might benefit from being covered under the HCP. Because the peregrine falcon is listed as endangered under the California Endangered Species Act, the HCP may be open to criticism if the species is not covered. At minimum, the species evaluation might include an explicit explanation why peregrine falcon is not covered.

Several species of plants with known historic occurrences in the planning area should be reevaluated: Ferris' and alkali milkvetch (*Astragalus tener*), Mount Diablo buckwheat (*Eriogonum truncatum*), rayless ragwort (*Senecio aphanactis*), and caper-fruited tropidocarpum (*Tropidocarpum capparideum*). The planning area covers the majority of the historic distributional range of these species, and the plants may occur on private property in the planning area that has not been surveyed. Another species that should be evaluated for coverage is *Erodium macrophyllum*. Although the latter plant was not on the initial list of 154 species evaluated for coverage, it is a rare native species, and is believed to have been found in the planning area recently.

Western pond turtle (*Clemmys marmorata*) and western spadefoot toad (*Scaphiophus hammondi*) should be reconsidered for coverage. California black rail (*Laterallus jamaicensis coturniculus*) and California horned lizard (*Phrynosoma coronatum frontale*) also may warrant coverage. The rail is listed as threatened by the state of California, and the lizard probably will be listed during the next several years.

Although none of the covered species should be removed from the covered species list, lower priority could be assigned to species that tend to occur upslope and / or mainly occur in areas that already are protected from development. For example, the majority of the range of Mount Diablo manzanita (*Arctostaphylos auriculata*) and Mount Diablo fairy lantern (*Calochortus pulchellus*), falls within lands that are already protected. The latter species are less likely to require conservation attention than species that do not occur on protected lands (e.g., species that occur on flat lands and sandy hills).

It also may be appropriate to prioritize species for coverage on the basis of the proportion of their distributional range contained within the planning area. If a species primarily occurs south of the planning area, it probably should be assigned a lower priority for conservation activities than a

species that largely is endemic to the planning area. For example, the planning area may represent the northern distributional limit of recurved larkspur (*Delphinium recurvatum*).

Sections on species evaluations in Chapter 3 could be expanded to address gradients of risk. The discussion might include an explicit acknowledgment that risk assessment is a complex discipline in its own right, and that formal, detailed risk assessments were not applied to determine which species would be covered by the HCP. For example, species evaluations did not consider geographic range and distribution (within versus outside of the planning area), the extent to which the species occurs on lands that already are protected from development, or the likelihood of development in the locations occupied by the species.
The Panel recognizes that it is extremely difficult for any two individuals to apply the same criteria in exactly the same way. There is no reason to believe that the criteria have not been applied appropriately to birds.

5. Have we appropriately applied the covered species criteria to generate the preliminary covered species lists?

On the whole, the covered species criteria appear to have been applied appropriately. As discussed above, there is some degree of concern regarding the geographic distribution of the species, the status of the land on which they occur, and the likelihood of future development and associated adverse impacts.

Rare species (especially plants) well may occur within the inventory area, but have not been recorded (e.g., due to inadequate survey effort or inaccessibility of private lands). In addition, it is possible that the planning area contains undescribed species of plants (five percent of the vascular plant species in California are believed to be undescribed). The latter species are likely to be rare, and may need to be treated on a case-by-case basis if they are not covered by the HCP. The regulatory agencies almost certainly will require some future surveys over the 30-year duration of the permit. Thus, there could be a benefit to providing coverage to taxa that are not currently listed as threatened or endangered, but are sufficiently rare that the covered activities pose a significant threat to their persistence.